| | |
|---|---|
| Title | 4. Application of the Single-Crystal Inclination Method to Study on Microdefects in Silicon |
| Author(s) | Nishitani, Akira |
| Citation | 物性研究 (1988), 50(6): 1106-1106 |
| Issue Date | 1988-09-20 |
| URL | http://hdl.handle.net/2433/93294 |
| Right | |
| Type | Departmental Bulletin Paper |
| Textversion | publisher |

関西学院大学理学部物理学教室

## 3. 汎関数積分の近似評価

中尾　肇

漸化式を用いて汎関数積分を近似的に評価する方法を提唱した。1次元調和振動子の Feynman 核を評価してその有効性を示した。乱流中の流体粒子の相対拡散問題に応用して，いくつかの仮定のもとではあるが，Richardson の法則に従うことを示した。

## 4. Application of the Single–Crystal Inclination Method to Study on Microdefects in Silicon

Akira Nishitani

The measurements of X-ray Pendellösung intensity beat have been carried out by using the single-crystal inclination method to clarify the nature of oxygen precipitates in the isochronally annealed Czochralski-silicon. The static Debye-Waller parameters have been determined by fitting the data to the dynamical theory. It has been found as follows: First, the measurements are useful for samples, for which the section topograph method can not be adapted. Second, the relation between the ratio of the kinematical scattering intensity to the dynamical one, $R_k/R_d$, and the static Debye-Waller parameter, $L$, can be explained qualitatively by the statistical dynamical theory. Finally, the annealing-temperature dependence of $(R_k/R_d)\exp(L)$ can be elucidated roughly by the high supersaturation approximation.